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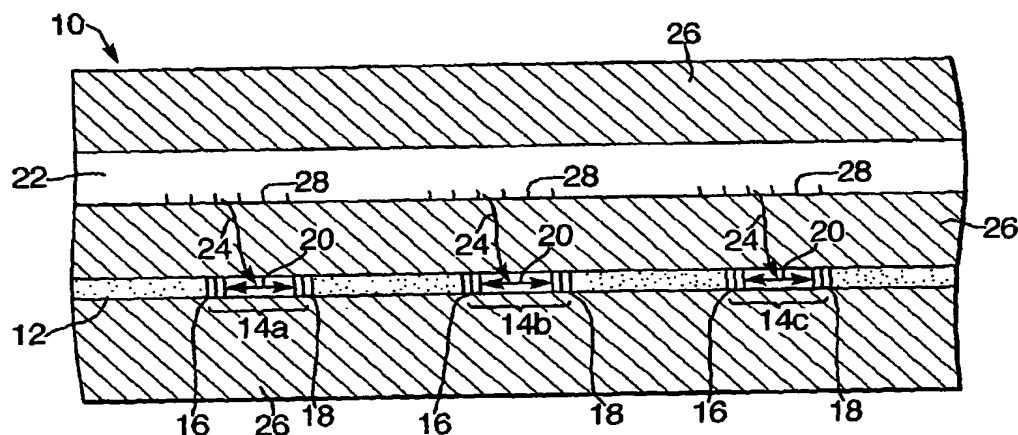
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[Continued on next page]

(54) Title: OPTICAL FIBRE



(57) Abstract: This invention relates to optical fibres, fibre lasers, fibre laser arrays and sensor systems comprising fibre laser arrays. Conventional fibre laser sensor arrangements comprise a plurality of fibre lasers arranged in series along a length of optical fibre. A pump light source is located at one end of the fibre and supplies pump light energy to each of the fibre lasers in turn. Such sensor systems experience a number of disadvantages. Firstly, there is an uneven distribution of pump power along the length of the fibre which effectively limits the number of laser devices that can successfully be incorporated into the optical fibre array. Secondly, the manner in which existing sensor systems are constructed often results in back reflections, optical losses and mechanical weaknesses. The present invention provides a fibre laser which mitigates the above problems with fibre laser sensor arrays.



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B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H01S G01D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 4 886 333 A (HICKS JOHN W) 12 December 1989 (1989-12-12)	1, 11, 12
A	column 4, lines 10-35; figure 3 column 5, lines 43-52	2, 10
Y	EP 0 435 217 A (UNITED TECHNOLOGIES CORP) 3 July 1991 (1991-07-03) figures 1,6,7	1, 2, 11, 12
Y	PATENT ABSTRACTS OF JAPAN vol. 0134, no. 01 (E-816), 6 September 1989 (1989-09-06) & JP 1 143380 A (FUJIKURA LTD), 5 June 1989 (1989-06-05)	2
A	abstract	1
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☒ Patent family members are listed in annex.

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G document member of the same patent family

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